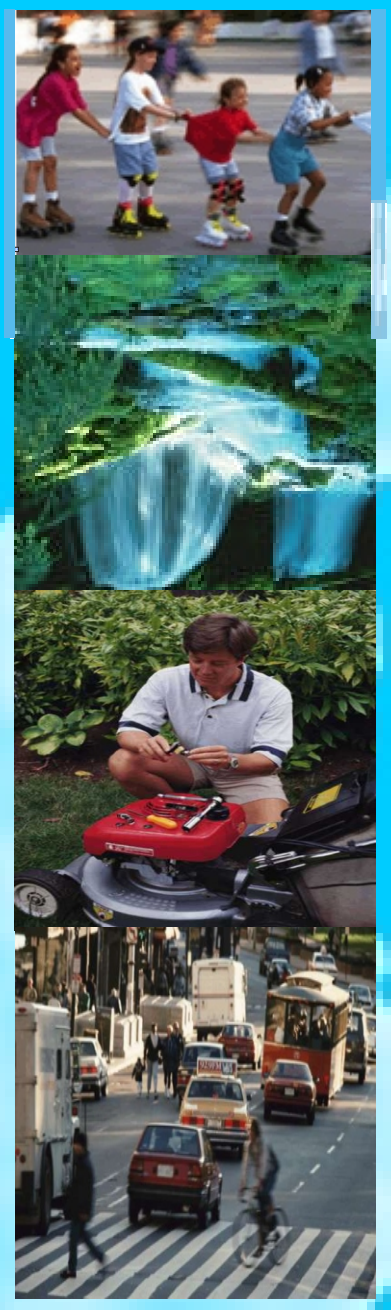
Maryland Department of the Environment
End of Season Ozone Report



Fall 2001

Ch-Ch-Ch-Changes

So long ENDZONE Partners, hello Clean Air Partners! At its annual meeting on November 16, 2000, ENDZONE Partners voted to change its name to Clean Air Partners. That's a much better name, easy to understand, easy to remember. It's a name that we hope you'll be hearing a lot of over the years, as we expand our public education efforts throughout the Baltimore/Washington region.

Clean Air Partners is a nonprofit, public-private partnership of the Washington Council of Governments (COG), the Baltimore Metropolitan Council (BMC) and the Maryland Department of the Environment (MDE) created to reduce ground level ozone through public education and voluntary actions. You can now get more information on Clean Air Partners from their new web site at www.cleanairpartners.net.

Ozone Action Days Conference

Last year's Ozone Action Days (OAD) Kick-Off Conference was our most successful ever. On April 20, 2001, Clean Air Partners sponsored the 3rd annual OAD Kickoff Conference at the Marriott Courtyard Hotel at the Baltimore Washington International Airport. Rudy Miller, a local celebrity, and current Vice President of Marketing and Community Relations at LifeBridge Health provided the Keynote address. As always, a perennial favorite, Bill Ryan again wowed the audience with his technical, yet "down to earth" (no pun intended) discussion of forecasting ground level ozone. The conference was then rounded out with presentations on health effects of ozone pollution, crafting Ozone Action Days programs, and new technology in monitoring and disseminating air quality information. Nearly 100 people attended this years' conference. In addition, to the excellent presentations and lunch, attendees were also pleased to receive a $5.00 gasoline card presented by BP/AMOCO.

Code Red Campaign 2001

"Code Red Campaign 2001" was one of Clean Air Partners' most extensive public outreach campaigns to date to address voluntary methods to reduce levels of ozone and deter harmful health consequences. This success was due to extensive voluntary efforts by businesses, governments, media outlets, healthcare employees and individuals. The weather was also a major factor. Meteorological conditions helped to create several multi-day ozone events. Tied in with the soaring temperatures and sunny days that typically produce high ground level ozone, the local news media dedicated significant coverage to ozone pollution and the associated health effects during the summer of 2001.

Randy Mosier & Russ Ulrich on WJZ-13's On Time

Ground level ozone became a frequent topic in area newspapers, television news segments, and radio. Television station WJZ-13 in Baltimore featured an extensive, two-day feature story on ozone pollution. The first days' story detailed how ozone is created and spread throughout the region, and MDE's efforts to monitor and forecast ozone. The news story on the second day featured the outstanding Ozone Action Days program managed by the Aberdeen

Proving Grounds. WBFF-45 also continued with their typically excellent coverage of the summertime ozone problem. In addition, a prominent and highly detailed article was featured in Baltimore Magazine. Overall, media coverage was two to three times greater than compared to last year.

Partner Information

We've been doing some house cleaning. This summer the Maryland Department of the Environment, Baltimore Metropolitan Council (BMC) and Washington Council of Governments (COG) merged their individual Ozone Action Days participant databases into one master file. This exercise produced several positive benefits. For one thing, it gave us a chance to get back in touch with our partners. Many businesses and individuals received phone calls from the BMC, who managed the merger, checking on their current status and activities with regards to Ozone Action Days. Now we have a much better picture of who is participating throughout the region and just exactly what actions people are taking. Many businesses and government agencies received positive exposure from the news media when their organization's activities were featured in various local news reports. Give your local OAD coordinator a call if you would like to check to see if your information is up to date.

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Advances In Communication

Since 1993, MDE has kept Maryland businesses and citizens informed on a daily basis throughout the summer as to the state of our air quality. MDE began faxing the daily forecast and developing strong relationships with the local news media outlets who in turn reported the forecast to a much broader audience. In addition, an Air Quality Hotline was set up at 410.631.3247. Taking advantage of the Internet, MDE began posting the daily forecast on MDE's web page in 1995. The web site forecasts were closely followed by a pilot e-mail notification program. Over 300 people currently receive their daily forecasts via email and in turn forward this information to thousands more throughout the region.

AIRWATCH on MDE's web site

In May 2001, the MDE Air Quality Web Site launched its newest air quality communication tool: **AIRWATCH**. **AIRWATCH** is a "real time" air quality data notification system. As ozone levels are collected from 17 monitors throughout the state, this data is updated hourly in a graphical interactive display. A map of Maryland is color coded to represent air quality levels recorded within the counties hosting ozone monitors. Many more enhancements are planned for this tool in the coming year so be sure to keep

watching at http://www.mde.state.md.us/arma.

Regional Haze: A Visibility and Health Problem

In 2001 Maryland joined 10 states, the District of Columbia, two Indian tribes, and the Federal government to work together to reduce regional haze, which adversely affects national parks and wilderness areas. The newly organized Mid-Atlantic/ Northeast Visibility Union (MANE-VU) will address the causes of regional haze and ways to reduce related pollutants, thereby improving visibility in the atmosphere.

Baltimore's Proposed Digital Camera View

MANE-VU was initiated to support its members as they address the requirements of the Federal regional haze rule, finalized in 1999, to improve visibility at national parks and wilderness areas. Preliminary analysis of air quality data from Ft. Meade and Shenandoah National Park show that regional haze is a major air quality problem in our region. Improving visibility by reducing air pollution will have public health and economic benefits as well as improved scenic vistas.

Regional haze limits visibility in the most scenic areas of Maryland, as well as in our urban areas. It is caused by fine particles suspended in the air that, at high concentrations, can cause significant detrimental human health effects. Sources of pollution contributing to regional haze include burning of fossil fuels and emissions of volatile organics. Current upper-air data suggests that the pollutants that cause regional haze are often transported long distances over state and tribal borders, thereby making regional cooperation essential. The pollutants that cause regional haze are also linked to other regional air pollution problems, such as ground-level ozone, acid and nutrient deposition, as well as fine particles.

EPA Air Quality Conference

MDE sent representatives to EPA's National Air Quality Conference on Mapping, Forecasting, and Action Day Programs in Charlotte, NC in January. This conference provided a unique forum to learn abut ozone mapping, air quality forecasting and what actions cities across the United States are taking to reduce ground level ozone. The conference proved to be an excellent opportunity to exchange ideas about getting important air quality information to the public.

EPA's AIRNOW web site www.epa.gov/airnow

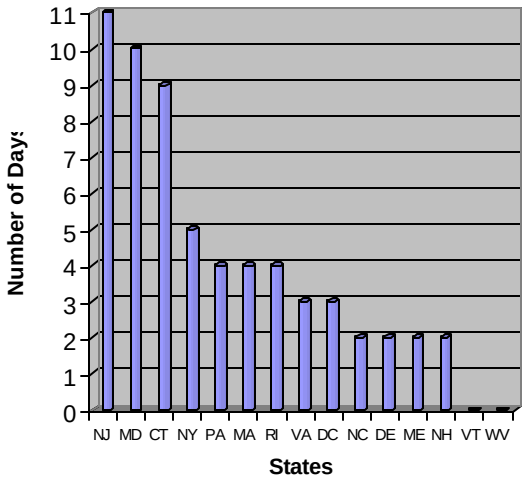
With most states already submitting ozone data to EPA's AIRNOW site, this conference placed more emphasis on PM2.5 monitoring, reporting and forecasting techniques. Many programs throughout the country are also starting to convey

visibility information through webcams and other methods to educate the public about forecasted air quality, the effects of air pollution, and the impact of Action Day activities.

2001 Ozone Summary

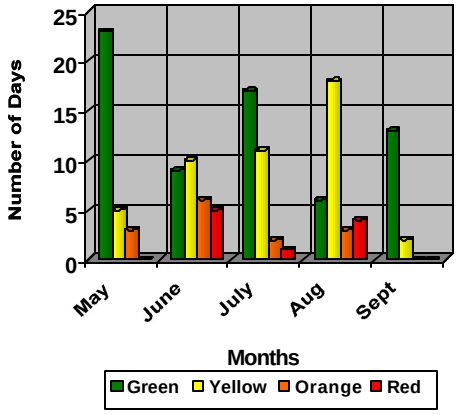
The 2001 ozone season in Maryland was one of short quick Code Red episodes. The longest period of Bad Air occurred in August from the 6th – 10th, when 4 out of the 5 days experienced Code Red air quality conditions. The 2001 summer was an average season for ozone with 10 days exceeding the 1-hour ozone standard.

Of the 14 states and the District of Columbia that make up the Mid-Atlantic/Northeast, top honors for worst ozone air quality in 2001went to New Jersey with a total of 11 days exceeding the 1-hour ozone standard. Close behind was Maryland with a total of 10 days exceeding the 1-hour ozone standard.



In Maryland (or the Old Line State) there were 10 Code Red days (Bad Air Days), 14 Code Orange days, 46 Code Yellow days and 68 Code Green days. In addition, a total of 10 days where also classified as Ozone Action Days. Maryland has been averaging roughly 10 Code Red days per summer during the past ten years.

Ozone exceeds the federal health standard when it's hourly concentration is equal to or exceeds 125 parts per billion (ppb). These exceedances are referred to as a Code Red or a Bad Air Day. The term Code Red is used to alert the general public when the air quality is considered unhealthy.



2001 Weather Summary

Overall the 2001 ozone season had average temperatures and slightly higher than normal precipitation. Warmer than normal temperatures during May, June and August was in contrast to a cool July. The cool July had a direct impact on the number of days reaching 90° F or higher. There were a total of 22 days that equaled or exceeded 90° F, which was below the seasonal average of 31 days.

Looking back, both June and August were on average 1.5 degrees above normal. But factor in July, which was an amazing 4.2 degrees below normal, and you can see why the summer was considered cooler than normal. Having singled out July, let's see what caused this dip in the temperature during what should be climatologically the warmest month of the year. The cool temperatures in July were a function of two related events. First, a series of small weak low pressure systems moving along the Canadian/US border kept a cool northwesterly flow coming into the mid-Atlantic region. This in turn

affected the position of the Bermuda High. This area of high pressure is usually positioned in the Atlantic just south east of the Maryland region and keeps the area hazy, hot and humid. In July this area of high pressure was forced to stay far enough out in the Atlantic so that the hot weather wasn't able to make it into Maryland.

2001 Ozone Exceedances (ppb)							
	Eastern Standard Time (EST)						
	1200	1300	1400	1500	1600	1700	1800
12-June-01							
Aldino				126			
Edgewood			125	126	127		
Fairhilll					126		
20-June-01							
Ft. Meade	127	137	126				
Greenbelt		136					
26-June-01							
Edgewood					126	142	129
Essex				130	129		
Suitland				128	125		
27-June-01							
Davidsonville		131	126				
Edgewood			131	133	127		
29-June-01							
Suitland			127				
17-July-01							
Edgewood			129	129			
6-Aug-01							
Aldino			125				
Edgewood		127	130				
8-Aug-01							
Edgewood		126	131				
9-Aug-01							
Aldino		148	150	136	147	127	
Edgewood	125	138	143	157	142		
Essex	134	138	149	149	128		
Ft. Meade				136			
Fairhill		128	132				
10-Aug-01							
Aldino		135					
Edgewood	137	130					